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ABSTRACT

The study documented the college and university hiring practices in California, Colorado, and Texas between 1970 and 1977 and documented the experiences of Chicano and Native American scientists with respect to employment. Data were gathered through mail surveys--31 (a 62% return rate) for the first part of the study and 82 (a 55% return rate) for the second part. The analyses were performed separately for Chicanos and Native Americans, although in many cases the findings were quite similar. The findings indicated that few Chicanos and Native Americans were hired between 1970 and 1977. Furthermore, it appeared that those individuals who were hired were not hired due to Affirmative Action. Thus, it was concluded that Affirmative Action plans at colleges and universities were not working to provide equality of opportunity for the minorities and that the following would help to provide that equality: (1) stricter goals and time tables regarding Affirmative Action plans should be implemented; (2) the federal government should take a more active role in enforcing Affirmative Action at every level; (3) Affirmative Action officers at colleges and universities should be independent of the schools and should be more active; (4) openings should be advertised widely including through minority organizations and publications; and (5) serious consideration should be given to retention, promotion, and tenure. (AN)

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UNDERREPRESENTATION IN THE SCIENCES: CHICANOS AND NATIVE AMERICANS*

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1978

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NATIONAL INSTITUTE OF EDUCATION

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RC 012415

Abstract

Although the number of Chicano and Native American professionals at institutions of higher education has increased, relatively few members of these minority groups are found in the "hard" sciences. This study reports on hiring practicies of colleges and universities in the Southwest between 1970--77 and on the experiences of Chicano and Native American scientists with respect to employment. Data were gathered through mail surveys. The findings indicate that few Chicanos and Native Americans were hired in the Southwest between 1970--77. Furthermore, it appears that those individuals who were hired, were not hired due to Affirmative Action. It thus seems that Affirmative Action plans at colleges and universities are not working to provide equality of opportunity for the minorities. Other findings are also reported and discussed herein.

Few Minorities in the Sciences

To paraphrase Cota-Robles (1973), Chicano and Native American students who have taken courses in the physical sciences at colleges and universities in the United States have seldom taken such a course from a Chicano or Native American professor.[1] This, of course, is in large part due to the relatively few number of Chicano and Native American individuals holding a Ph.D. in the physical sciences. In the entire United States, for example, less than 100 Chicanos hold the Ph.D. in all of the physical science disciplines combined (Vélez, 1976). The number of Native Americans in these fields is even smaller.

The pattern of underrepresentation for these two ethnic minorities does not appear to be changing significantly. Although higher education as a real alternative has become more available for minority students (Planning Commission, 1974), the "hard" sciences have not been as responsive to these individuals as other fields--e.g. education, business, law, medicine--(López, et. al., 1976). For example, Chicano graduate enrollment at Stanford University grew from 20 in 1968 to 202 by 1973. However, looking at fields of study we find that relatively few students were enrolled in the physical sciences (See Table 1).

(Table 1 about here)

Earth sciences attracted only one Chicano in 1973, while law enrolled 36 and education 51 during the same year. A similar pattern can be found at both the undergraduate and graduate levels at colleges and universities throughout the Southwest (López, et. al., 1976).

One can only agree with Weinberg (1977) when he concludes that at this time equality of educational opportunity for Mexican Americans and Native Americans, particularly in the physical sciences, is far from

actualization.

The present paper reports on a two-fold research project: 1) a study documenting college and university hiring practices in the Southwest (California, Colorado, and Texas) between 1970 and 1977;[2] and 2) a study documenting the experiences of Chicano and Native American scientists with respect to employment.

Procedures

The data presented in this report were primarily gathered through mail surveys. Documentation on the hiring practices of colleges and universities in the Southwest was obtained through questionnaires. (For a copy of the instrument see Appendix A.) The questionnaires were mailed with a cover letter explaining the project to Deans of the Sciences. A total of 50 questionnaires were mailed out to colleges and universities in the three states, 29 were sent to California, 5 to Colorado, and 16 to Texas. (For the list of schools contacted see Appendix B.) All colleges and universities in the state system were included in the sample. In addition, 4-year educational institutions with an enrollment of 10,000 or more were also included. All of the schools were selected from the Higher Education Directory, 1974-75 (Podolsky, 1975).

An effort was made to insure a high return rate. Institutions which had not responded by a certain date were sent a follow-up letter along with a second copy of the questionnaire.

The final sample size of colleges and universities was 31, for a 62 percent return rate. The number returned from each state was 21 from California (72 percent return rate), 3 from Colorado (60 percent return rate), and 7 from Texas (44 percent return rate).

Data for the second part of the study were also collected through a mail survey. The questionnaire went through a pretest before it

was mailed out to 150 Chicano and Native American scientists. (For a copy of the instrument see Appendix C.) Individuals were selected from two major listings; 1) the 1977 mailing list of the Society for the Advancement of Chicanos and Native Americans in Science, and 2) a national list of Chicanos in higher education for 1977 (Office of Chicano Affairs, 1977).[3] All of the scientists on both of these lists were included in the survey sample.

Over half (55 percent) returned the completed questionnaire (N=82). Eleven were returned by the post office because they were "not deliverable" with the address provided. Of the 82 individuals who completed the questionnaire, 64 identified themselves as Chicano, 9 as Native Americans, and 9 as Other (3 Puerto Ricans, 2 Filipino, 1 Italian, and 3 did not specify ethnicity).

The analyses were performed separately for Chicanos and Native Americans, although in many cases the findings were quite similar. The category "other" was not included in the anlysis due to the small number of cases.

Results

Employment Practices

Tables 2-4 present the findings on the number of faculty in colleges and universities throughout the Southwest (California, Colorado, and Texas) between 1970 and 1977. In every state relatively few Chicanos and Native Americans were hired in either engineering or the natural sciences over this time period. Vélez (1976) found a similar pattern in Arizona and New Mexico. However, about half of the minorities hired in our sample were in tenured positions.

(Tables 2, 3, and 4 about here)

In California (the state with the highest questionnaire return rate) the number of Ph.D. Chicano and Native American engineers increased from 0 t, 1 between 1970 and 1977, while the total number of Ph.D.s with tenure increased from 259 to 367 (see Table 2). In the natural sciences, 5 Chicanos and 2 Native Americans were employed during the same time period. The number of Chicano tenured Ph.D.s in the natural sciences rose from 4 to 7 (a 57 percent increase), while the total number of tenured Ph.D.s in the fields went from 723 to 1155 (an increase of 63 percent). However, in 1977, Chicanos represented only .01 percent of the total number of tenured faculty in the natural sciences.

Data on engineering were not available for colleges and universities in Colorado for 1970, in 1977 there was only one Chicano on the engineering faculty (see Table 3). Looking at the natural sciences we found that although there had been an increase in the number of Chicanos hired (from 1 to 10), all nine were at the non-tenured level. No Native Americans were employed at any level or in any field in the Colorado colleges and universities.

Texas (the state with the lowest questionnaire return rate) also hired few Chicano and Native American scientists between 1970 and 1977. In engineering, 4 Chicanos and 1 Native American were hired and in the natural sciences, 7 and 1, respectively. In engineering, the number of Chicano Ph.D.s with tenure rose from 0 to 1 and in the natural sciences from 0 to 5. However, even with the increases, tenured Chicanos represent only .01 percent of the total number of tenured faculty in engineering and .02 percent of those in the natural sciences.

Employment Experiences

We found that 89 percent of Chicanos and Native Americans in our sample had earned the Ph.D. Of the remaining Chicanos, 6 had earned the M.S. degree and one was an M.D. The one Native American who had

not completed the Ph.D. had received the B.S. degree.

A wide range of areas of specialization were covered by the individuals in our sample. The largest proportion of both Native Americans (67 percent) and Chicanos (39 percent) were in the biological sciences. Twenty-eight percent of Chicano respondents were in chemistry and 16 percent in mathematics or computer science. Other fields represented in the sample included: physics, engineering, geology, and the history of science.

The majority of Chicanos (84 percent) and Native Americans (78 percent) in our sample reported that they sought employment at colleges and universities upon completion of their professional training. Industry ranked second and government third as choices for employment. It seems that Chicano and Native American scientists prefer the academic environment of the university setting as a place to carry out their professional activities.

Most (72 percent) of the Chicanos in our sample were employed in the Southwest (Arizona, California, Colorado, New Mexico, and Texas). Native Americans were not as concentrated, less than half (44 percent) worked in the Southwest. Of the 18 Chicanos who were not employed in the Southwest, only 2 stated that they were employed in an area with a sizable Spanish speaking population. However, the vast majority (81 percent) of those not employed in the Southwest would prefer a position in the Southwest. Eighty percent of the Native Americans not employed in an area with a sizable Native American population would prefer a position in such an area. These findings are as expected given the cultural characteristics (e.g., family values and structure) of these minority groups. In other words, Chicanos prefer to reside and work in an area with a Chicano community and Native

Americans in an area with a Native American community.

We found that a large number of individuals had sought employment in the Southwest, 92 percent of Chicanos and 86 percent of Native Americans. Between 1971 and 1976 no fewer than 20 Chicano scientists sought employment in the Southwest during any one year. California and Texas were the states in which most Chicanos looked for a position. Arizona was the state in which the fewest number of Chicanos attempted to acquire a position. These findings seem reasonable since California and Texas have the largest number of colleges and universities in the Southwest. On the other hand, Arizona has relatively few institutions of higher education. However, it is worth noting that between 1970 and 1976, Arizona hired only one Chicano scientist (Vélez, 1976). It seems that this state is not a very profitable area for Chicano scientists to seek employment. Our findings indicate that Chicanos are aware of this situation and consequently are not concentrating their efforts on seeking employment in Arizona.

Native Americans, on the other hand, tended to prefer Arizona, California, and New Mexico as possible areas of employment. Colorado was the least favored among this group, not a single Native American in our sample sought employment in Colorado between 1971 and 1977.

We found that .48 percent of the Chicanos in our sample had held only one position since completion of their educational training.

When asked if any of the offers they had received were contingent upon involvement with minority/ethnic programs. the great majority of Chicanos (87 percent) and Native Americans (75 percent) answered that this had not been the case. (This finding is somewhat unexpected and will be discussed in greater detail below.)

The following are among the contingencies listed by those who

checked that offers had depended on involvement with minority/ethnic programs.

1. Develop and teach a course in biology for "educationally disadvantaged students".
2. Membership in admissions committee to screen minority applicants.
3. Part-time advisor to minority students.
4. Split appointment with ethnic studies program.

The vast majority of individuals turned down for a position were not given reasons as to why the position had not been offered to them. Some, however, were given reasons, from the more common--"lack of experience, not enough publications, and wrong area of specialization"--to the more unusual--"not qualified and too active in Chicano affairs".

When asked to check reasons for having accepted their present position, 30 percent of Chicanos checked the category "because it is in an area with a Mexican American community". Twenty-two percent of Native Americans checked a similar category, "because it is in an area with a Native American community". About the same number (28 percent of Chicanos and 11 percent of Native Americans) checked the item, "because it is close to my family". Few (11 Chicanos and 1 Native Ameican) cited the item, "because no other position was offered to me". Even fewer (5 Chicanos and 1 Native American) checked the item, "because I couldn't get a position in the Southwest". No one, however, checked the category, "because I did not have to be involved with minority/ethnic programs". The category most often checked by both groups was "other". The following are among the reasons given here: good job, good location, and good pay (clearly the most obvious reasons for selecting a position, items which we had failed to list on the questionnaire).

About half (48 percent) of Chicano and 62 percent of Native American respondents said that they had been approached by a university or laboratory in the Southwest to fill a position. The majority of these (67 percent of both Chicanos and Native Americans) felt that this was primarily due to Affirmative Action.

Table 5 presents the results on the perceptions of the respondents with regards to the Affirmative Action plan at their institutions. Most of the Chicanos (89 percent) and all of the Native Americans in our sample reported that their institutions had a government approved Affirmative Action plan. Also, over half (55 percent of Chicanos and 90 percent of Native Americans) said that these plans were already in effect. However, relatively few (32 percent of Chicanos and 30 percent of Native Americans) felt that the Affirmative Action plan at their institution was strong enough to meet the needs of minorities.

(Table 5 about here)

To end this section on a more positive note, we found that the vast majority of both Chicanos (92 percent) and Native Americans (86 percent) employed at colleges and universities were in tenure-track "hard-money" positions.

Discussion and Conclusions

It is interesting to note that all of the individuals who responded to the last item on the questionnaire--"please provide us with any other information regarding employment of Chicano and Native American scientists in the Southwest that may be useful to our study"--commented on Affirmative Action plans. Basically, they felt that the dominant structure viewed and treated them as tokens and that few genuine efforts were being made to improve the hiring of minorities. One individual

wrote: "I know of no institution that is really carrying out an Affirmative Action plan both in the letter and spirit of the law." Another stated that in the institutions with which he was familiar, Affirmative Action plans were "hypocritical" and "unsuccessful."

One respondent wrote that the president of a major university in the Southwest had recently told him that he supported Affirmative Action 100 percent, yet in the same university Mexican Americans constituted fewer than .05 percent of the science faculty. When confronted with this fact, the president responded with the typical, "Well, it's difficult to find qualified minority individuals and we are not going to lower our standards." How often has this type of statement been expressed?

In our opinion, this is a common excuse voiced by colleges and universities for not hiring minorities and exemplifies a lack of understanding of what Affirmative Action is. Affirmative Action does not imply a lack of qualifications and a lowering of standards.

More than once we have heard that due to Affirmative Action, minorities are acquiring top-level, high-income, prestigious occupations. However, if we take the Supreme Court's suggestion that one indicator of the absence of discrimination is that the work force will be "more or less representative of the population in the community from which employees are hired",[4] we must conclude that discrimination against Chicanos and Native American scientists still exists in colleges and universities throughout the Southwest.

Based on our study, we conclude that, for the most part, Chicano and Native American scientists are not being hired due to Affirmative Action. Moreover, Affirmative Action plans as currently conceived are not an effective and efficient means of redressing the past exclusionary practices and discriminatory activists of institutions of higher

education. In short, they do not provide the intended equal employment opportunities for minorities.

It is time to focus attention away from the general discussion of Affirmative Action and toward the implementation of effective Affirmative Action plans if this nation is going to provide true equality of opportunity to all its inhabitants. The U.S. Supreme Court has recognized the need for immediate Affirmative Action: [Where the burden is directly caused by past discriminatory practices it is readily apparent that if the rights of minority members had not been violated many more of them would enjoy those rights than presently do so and that the ratio of minority members enjoying such rights would be higher. The effects of such past violations of the minority's rights cannot be eliminated merely by prohibiting future discrimination, since this would be illusory and inadequate as a remedy. Affitmative action is essential . . . to place eligible minority members in the position which the minority would have enjoyed if it had not been the victim of discrimination.] (as quoted by U.S. Commission on Civil Rights, 1977: 7-8.)

Recommendations

The following recommendations with respect to Affirmative Action are aimed at redressing discriminatory employment practices by colleges and universities. These recommendations are seen as minimum criteria in the process of providing equal employment opportunity to all of the nation's people.

1. Stricter goals and time tables regarding Affirmative Action plans should be implemented.
2. The Department of Health, Education, and Welfare should take a more active role in enformcing Affirmative Action.

3. Affirmative Action officers at colleges and universities should be independent of these institutions. That is, perhaps they should be government employees who are not at the mercy of the institution they are attempting to change.
4. In our opinion, the role of the Affirmative Action officer, in many institutions, has been one of policing, that is, once a candidate is hired the Affirmative Action officer checks to see if the position was advertised. We suggest a more active role. This would entail that the Affirmative Action officer know that a position is available at the onset in order that he take a more active part in the whole process (advertisement, screening, etc.).
5. Equality of educational opoortunity must be enforced at every level of the educational system if we are to ensure a pool of "qualified" minority applicants for all types of occupations.
6. Openings should be advertised widely including through minority organizations and publications, e.g. SACNAS.
7. Serious consideration must be given to the areas of retention, promotion, and tenure. We cannot assume that the advertisement of openings or even the hiring of a few minorities will mean full equality of opportunity throughout their careers. Some monitoring seems necessary at this time.

Finally, more research is needed on hiring practices of colleges and universities. Studies on various aspects and with different methodologies are necessary in order to assess the extent to which the law is being carried out. Our own study is weak in that it only focuses on one side of the employer-employee interaction. Equal, if not more, attention should be focused on the employer and the whole employment process.

Both employers and employees need to be studied in order to arrive at a fuller understanding of Affirmative Action. One specific research project we would like to see carried out involves the study of job descriptions. We suspect that analysis of the way in which job descriptions are presently written (in much detail) would reveal that they are written to fit the qualifications of a particular individual already in mind for the position, and thus continue to perpetuate discrimination.

Footnotes

1. The "physical" or "hard" sciences are defined in this article as including engineering, mathematics, and the natural sciences (chemistry, physics, biology, etc.), thus excluding the "social" sciences. Also, in this paper the term "Chicano" is used synonymously with "Mexican American" and the term "Native American" synonymously with "American Indian".

2. Arizona and New Mexico were not included in the survey because the same type of data had been gathered in these states earlier. (See Vélez, 1976.) However, relevant findings from this earlier work are summarized in the present report.

3. Not surprisingly, there were fewer than 10 women scientists on either of these mailing lists, which gives an indication of the status of Chicano and Native American women in the physical sciences.

4. International Brotherhood of Teamsters vs. United States, 97 S. Ct. (1977). We realize that "community" may mean the local, immediate area or the entire United States, but even when applied in its broadest sense, Chicano and Native American scientists do not represent their ethnic groups proportionately.

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Please return to:

APPENDIX A

Dr. William Yslas Vélez
Department of Mathematics
University of Arizona
Tucson, Arizona 85721

College or
University_____

1970 - Engineering

	Ph.D. Tenured	Ph.D. Non-Tenured	Non-Ph.D. Tenured	Non-Ph.D. Non-Tenured
Total number of faculty in engineering				
Number of Chicano faculty				
Number of Native American faculty				

1970 - Natural Sciences

	Ph.D. Tenured	Ph.D. Non-Tenured	Non-Ph.D. Tenured	Non-Ph.D. Non-Tenured
Total number of faculty in the natural sciences				
Number of Chicano faculty				
Number of Native American faculty				

1977 - Engineering

	Ph.D. Tenured	Ph.D. Non-Tenured	Non-Ph.D. Tenured	Non-Ph.D. Non-Tenured
Total number of faculty in Engineering				
Number of Chicano faculty				
Number of Native American faculty				

1977 - Natural Sciences

	Ph.D. Tenured	Ph.D. Non-Tenured	Non-Ph.D. Tenured	Non-Ph.D. Non-Tenured
Total number of faculty in natural sciences				
Number of Chicano faculty				
Number of Native American faculty				

Appendix B

California

California Institute of Technology, Pasadena
California State College, Bakersfield
California State College, San Bernardino
California State College, Sonoma
California State College, Stanislaus
California State University, Dominguez Hills
California State University, Chico
California State University, Fresno
California State University, Fullerton
California State University, Arcata
California State University, Long Beach
California State University, Los Angeles
California State University, Northridge
California State University, Sacramento
Hayward State University, Hayward
Loyola Marymount University, Los Angeles
San Diego State University, San Diego
San Francisco State University, San Francisco
San José State University, San José
Stanford University, Stanford
University of California, Berkeley
University of California, Davis
University of California, Irvine
University of California, Los Angeles
University of California, Riverside
University of California, San Diego
University of California, Santa Barbara
University of California, Santa Cruz
University of Southern California, Los Angeles

Texas

East Texas State University, East Texas Station
Lamar University, Beaumont
North Texas State University, Denton
Pan American University, Edinburg
Rice University, Houston
Sam Houston State University, Huntsville
San Antonio College, San Antonio
Southwest Texas State University, San Marcos
Stephen F. Austin State University, Nacogdoches
Texas A & M, College Station
Texas Tech University, Lubbock
University of Houston, Houston
University of Texas, Arlington
University of Texas, Austin
University of Texas, El Paso
University of Texas, Richardson

Colorado

Colorado State University, Fort Collins
University of Colorado, Boulder
University of Colorado, Colorado Springs
University of Colorado, Denver
University of Northern Colorado, Greeley

THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA 85721

COLLEGE OF LIBERAL ARTS
MEXICAN AMERICAN STUDIES COMMITTEE

APPENDIX C

Questionnaire on the employment of Chicano/Mexican American and Native American Scientists in the Southwest. Please return the completed questionnaire by January 30, 1978 to:

Dr. William Yslas Vélez
Dept. of Mathematics
University of Arizona
Tucson, Arizona 85721

1. Ethnic identity

____Chicano/Mexican American ____Native American ____Other.

2. Highest degree earned_____

3. Area of specialization_____

4. Upon completion of your professional training, what type of employment did you seek?

___University ____Industry ____Federal Government ____Other.

_____

5a. Are you currently employed in the Southwest (Arizona, California, Colorado, New Mexico, Texas)? ____Yes ___No.

b. If not, are you employed in an area with a sizable Spanish speaking population (If not Chicano/Mexican American, are you employed in an area with a sizable Native American population)? ____Yes ___No.

c. If not, would you prefer a position in the Southwest (or in an area with a sizable Chicano/Mexican American or Native American population? ___Yes ___No.

6a. Have you sought employment in the Southwest? ___Yes ___No.

b. If yes, when and where? Please check.

	Before 1971	1972	1973	1974	1975	1976	1977
Arizona							
California							
Colorado							
New Mexico							
Texas							

7a. As a result of your attempts to find employment in the Southwest, were you successful? _____yes _____no.

b. Were there any offers which were contingent upon involvement with minority/ethnic programs? _____yes _____no.

c. If yes, please specify the contingencies._____

_____.

d. If your efforts were unsuccessful, were you given specific reasons why the position could not be offered to you?
Please specify._____.

8. What were your reasons for accepting your present position?
Please check as many as apply.

___because it is in an area with a Mexican American or Native American community.

___because it is close to my family.

___because no other position was offered to me.

___because I couldn't get a position in the Southwest.

___because I didn't have to be involved with minority/ethnic programs.

___others_____.

_____.

9a. Have you ever been approached by a University or Laboratory in the Southwest to fill a position? ____yes ____no.

b. If yes, was it a result of affirmative action? ___yes ___no.

10. If you are employed at a college or university are you:

a) ____on soft money _____on hard money

b) ____non-tenure-track _____tenure-track

11a) Number of positions that you have held since completion of your educational training_____.

12a) Does your institution have a government approved affirmative action plan?
_____yes _____no.

b) In your opinion, is this affirmative action plan strong enough to meet the needs of minorities? ____yes ____no.

c) In your opinion, has this affirmative action plan been implemented?
_____yes _____no.

13) Please provide us with any other information regarding employment of Chicano and Native American Scientists in the Southwest that may be useful in our study. _____

_____

_____

Table 1*

Chicano Graduate Enrollment at Stanford University
between 1968 and 1973, by Field of Study

School	1968	1969	1970	1971	1972	1973
Business	--	1	9	17	20	24
Earth Sciences	--	--	--	1	1	1
Education	6	13	12	22	37	51
Engineering	3	--	2	9	20	15
Humanities and Sciences	5	7	16	33	43	49
Law	4	6	7	12	22	36
Medicine	2	5	10	14	21	26
Total	20	32	56	108	164	202

*Source: Lopes, et al., Chicanos in Higher Education: Status and Issues, 1976, p. 147.

Table 2

Number of Faculty in California Schools
by Field of Study and Ethnicity

	1970			1977		
Engineering	Chicano	Native American	Total Faculty	Chicano	Native American	Total Faculty
Ph.D. tenured	--	--	259	1	1	367
Ph.D. non-tenured	--	--	129	--	--	105
Non-Ph.D. tenured	1	--	90	1	--	68
Non-Ph.D. non-tenured	1	--	34	--	--	17
Natural Sciences						
Ph.D. tenured	4	1	723	7	1	1155
Ph.D. non-tenured	4	--	340	6	1	286
Non-Ph.D. tenured	1	--	33	--	--	26
Non-Ph.D. non-tenured	2	--	65	3	1	61

Table 3

Number of Faculty in Colorado Schools
by Field of Study and Ethnicity

	1970			1977		
Engineering	Chicano	Native American	Total Faculty	Chicano	Native American	Total Faculty
Ph.D. tenured	data not available			--	--	72
Ph.D. non-tenured				1	--	30
Non-Ph.D. tenured				--	--	13
Non-Ph.D. non-tenured				--	--	5
Natural Sciences						
Ph.D. tenured	--	--	46	--	--	242
Ph.D. non-tenured	1	--	24	4	--	87
Non-Ph.D. tenured	--	--	2	--	--	6
Non-Ph.D. non-tenured	--	--	--	6	--	71

Table 4

Number of Faculty in Texas Schools
by Field of Study and Ethnicity

	1970			1977		
Engineering	Chicano	Native American	Total Faculty	Chicano	Native American	Total Faculty
Ph.D. tenured	--	--	40	1	--	128
Ph.D. non-tenured	--	1	57	3	1	86
Non-Ph.D. tenured	--	--	13	--	--	25
Non-Ph.D. non-tenured	1	--	6	--	--	40
Natural Sciences						
Ph.D. tenured	--	--	147	5	1	241
Ph.D. non-tenured	--	--	66	1	--	143
Non-Ph.D. tenured	--	--	28	1	--	17
Non-Ph.D. non-tenured	2	--	12	--	--	13

Table 5

Perceptions of the Affirmative Action Plan
at Their Institution, by Ethnicity

	Does institution have government approved plan?		Has plan been implemented		Is plan strong enough to meet needs of minorities?	
	Yes	No	Yes	No	Yes	No
Chicano	.89	.11	.55	.45	.32	.68
Native American	1.00	.00	.90	.10	.30	.70